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Descriptors- *ACADEMIC EDUCATION, COMPARATIVE ANALYSIS, CONTROL GROUPS, DOCTORAL THESES, *DROPOUT REHABILITATION, DROPOUT RESEARCH, DROPOUTS, *EMPLOYMENT EXPERIENCE, EXPERIMENTAL GROUPS, *SUCCESS FACTORS, *VOCATIONAL EDUCATION, VOCATIONAL FOLLOWUP

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The purpose of this dissertation, submitted to Oklahoma State University, was to investigate vocational success differences in four groups of subjects at the Manpower Development and Training Act School Dropout Rehabilitation Program in Oklahoma City in 1965. An ex post facto design involved 162 subjects in three curriculums (combination, vocation, or academic); 40 of these had dropped out or did not start the program and served as a control group. The subjects had to be (1) unemployed or underemployed school dropouts, (2) between the ages of 17-22, (3) out of school at least 1 year, and (4) judged capable of completing the program. Vocational success measures taken at 6-month and 1-year intervales after training were (1) entry into the labor market, (2) employment status, (3) number of jobs held, (4) number of days employed, (5) weekly wages, (6) job performance, and (7) job satisfaction. Results significant at the .05 level were: (1) The ratio of subjects entering the labor market to subjects not entering was greater for the vocational group than for the control group, (2) The ratios of employed to unemployed were greater for the combination and vocational groups than for the control group, (3) Combination, vocational, and academic groups were employed more days than the control group, and (4) The combination and vocational groups were employed more days than the academic group. (EM)

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By

GERALD EUGENE BOGGS

Bachelor of Science
East Central State College
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1961

Master of Science
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Stillwater, Oklahoma
1965

**Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the degree of
DOCTOR OF EDUCATION
May, 1967**

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Name: Gerald Eugene Boggs Date of Degree: May, 1967

Institution: Oklahoma State University

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Scope and Method of Study: The primary objective of this study was to evaluate three experimental curricular approaches to "rehabilitating" school dropouts in the 1964-65 MDTA School Dropout Rehabilitation Project. Evaluation was in terms of seven measures of vocational success obtained for the year immediately following conclusion of training.

Subjects consisted of persons who received vocational skill training in combination with academic training, persons who received only vocational skill training, persons who received only academic training, and persons who received no training or who dropped out of the program before completing 15% of the required course of study. These were designated as subjects in the combination, vocational, academic, and control groups, respectively.

The basic design was *ex post facto* in nature in which subjects in the experimental and control groups were compared on a posttest basis on the following variables: entry into the labor market, employment status, number of jobs held, number of days employed, weekly wages, job satisfaction, and job performance. Information pertaining to the seven operationally defined vocational success measures was obtained primarily by means of face-to-face interviews conducted in conjunction with the Oklahoma State University School Dropout Study sponsored by the Ford Foundation. Both subjects and employers were contacted as part of the follow-up campaign to obtain data relating to the vocational success of 162 subjects. Instruments utilized in collecting data were the *Youth Opportunity Follow-Up Survey Form*, the *Brayfield-Rothe Job Satisfaction Questionnaire*, and the *Goertzel Job Success Scale*.

Findings and Conclusions: Analyses among experimental and control groups resulted in significant differences on three vocational success variables. These were entry into the labor market during the year following training, employment status at the one year time following training, and the number of days employed during the year following training. Between group comparisons of all possible pairs of groups made following rejection of the hypotheses relative to the three variables discussed above, indicated a trend favoring subjects in the combination and vocational groups.

Results significantly favored subjects in the vocational group over subjects in the control group on entry into the labor market; subjects in each of the combination and vocational groups over subjects in the control group on employment status at the one year time following training; and subjects in each of the three experimental groups over subjects in the control group on the number of days employed during the year following training. Subjects in the combination and vocational groups were also found to be significantly favored over subjects in the academic group on the number of days employed.

The trend continued to favor subjects in the combination and vocational groups on two variables where non-significant differences were noted among the four groups. Mean weekly wages and job satisfaction scores were highest for these two groups. Mean weekly wages were higher for subjects in the academic group than for subjects in the control group, but job satisfaction scores were lower for those subjects who received only academic training.

On two variables where non-significant differences were noted among the experimental and control groups, namely job performance rating scores and the number of jobs held during the year following training, the trend was not discernible.

Considering the general trend which occurred throughout most of the data indicating that subjects in the combination and vocational groups enjoyed the greatest degree of vocational success during the first year following training, the conclusion was made that these two curricular approaches were the most effective in "rehabilitating" these particular school dropouts.

Recommendations pointed out the need for conducting such research on a more longitudinal basis and utilizing selection procedures which would allow more control to be exercised.

ADVISOR'S APPROVAL____________________________________

A COMPARATIVE ANALYSIS OF THE IMPACT OF VARIOUS TYPES OF CURRICULA ON THE VOCATIONAL SUCCESS OF SCHOOL DROPOUTS

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CHAPTER I

THE NATURE OF THE PROBLEM

Introduction

The economic plight of school dropouts has been brought to the attention of the American public increasingly within recent years. Recurrently publicized research has not only indicated that many dropouts are underemployed, working in low level jobs with poor pay, but also that many are members of the hard-core group of unemployed. Recent figures show that the unemployment rate among dropouts is over twenty percent. (52) Because of high rates of unemployment, many of these persons have been found to be dependent on public welfare. To further add to the problem, children of school dropouts themselves tend to become unemployable school dropouts. This recurring problem associated with early school leaving greatly adds to the tax burden of society.

Such serious economic consequences resulting from school attrition have prompted educators to promote intense publicity campaigns in an effort to enlighten youths about the rewards of staying in school. A highly publicized figure indicates that youngsters who have graduated earn, on the average, $49,000 more in their lifetime than do youngsters who drop out of school prior to graduation. However, in spite of local, state, and national campaigns to induce young people to continue with their education until they graduate from high school, the number of dropouts remains high. In the year ending October, 1965, 75,000 more dropouts occurred than in a similar ending period in 1964. (51)

In recent years numerous public figures have stated their views on the problem. President Kennedy (42, p. i), for example, included comments about dropouts in his "State of the Union Address" to Congress on January 14, 1963.

> The future of any country which is dependent on the will and wisdom of its citizens is damaged, and irreparably damaged, whenever one of its children is not educated to the fullest extent of his capacity, from grade school through graduate school. Today, an estimated four of every ten students in the fifth grade will not even finish high school--and that is a waste we cannot afford.

Serious economic consequences will continue to face the school dropout in a rapidly expanding technological age where few opportunities will be present for unskilled workers. Hamel (51, p. 645), indicating that jobs being created in large numbers by recent technological changes require higher levels of intellectual, vocational, and personal competency than most school dropouts have to offer, states:

> Young men and women who leave school before completing high school impose upon themselves a great disadvantage in their role as workers. In a society where even the high school graduate often needs additional schooling or training for many jobs, the dropout often lacks the basic education needed to prepare him for most available jobs or to qualify him for most advanced job training.

Daniel Schreiber (41, p. 1), former director of the School Dropout Project for the National Education Association, forecasts a dark economic future for the dropout when he states:

> Whether he has failed or left school voluntarily, he has only gone so far; and he can only go so far into life; the larger and richer spheres of personal and social experience immediately begin closing to him. Whether he has

> specifically chosen and decided so or not, he is relegated to a lower notch, a lower status--his working life will be passed in low-level jobs paying low wages and susceptible to lay offs. In almost every case, he is forced to be content--or discontent--with relatively little, and surely with less than was possible.

Barry and Wolf (2, p. 149), showing the same concern, state:

> The employment outlook for the high school dropout will grow worse not get better. Gone are the days when the boy dropping out of school could find ready employment in mining, construction, heavy industry, or transportation. With much competition, jobs go to the most experienced and the most highly trained. Automation and increased productivity per man-hours or work indicate that the school dropout will continue to face a dismal employment scene.

Reflecting national concern over wasted human resources in an economy which badly needs skilled workers, the Federal Government enacted the Manpower Development and Training Act on March 15, 1962. The Act was amended in 1963.

Under the original Act, Public Law 87-415, responsibilities were given to both the Secretary of Labor and the Secretary of Health, Education, and Welfare. The Secretary of Labor was made responsible for surveying employment opportunities in the states, selecting people for training, paying them allowances, and assisting in job placement. The Secretary of Health, Education, and Welfare, through the Office of Education's Division of Vocational and Technical Education, was made responsible for organizing the training.

The Amendment to the Act, Public Law 88-214, made the program more accessible to out-of-school youths by lowering the age of training to 17 years and allowing the trainees to work up to twenty hours per week without endangering their allowances. (50)

One program funded under the Manpower Development and Training Act, The Oklahoma City School Dropout Rehabilitation Project, began on

August 3, 1964. Participants who entered this program to receive training in the Oklahoma City Public Schools were unemployed or underemployed school dropouts who had been out of school for at least one year.

In November, 1963, Oklahoma State University received a three year grant from the Ford Foundation to study the participants in the Oklahoma City Program. Project leaders J. Paschal Twyman, Victor O. Hornbostel, and John C. Egermeier, were all members of the Education Department at Oklahoma State University.

To facilitate research, three experimental groups and one control group were formed consisting of subjects who received vocational training in combination with academic training, subjects who received only vocational training, subjects who received only academic training, and subjects who received no training. These groups were designated the combination, vocational, academic, and control groups, respectively.

Through the Manpower Development and Training Act, several million dollars have been appropriated for retraining unemployed and underemployed American workers. For 1965 and 1966 alone, almost 700 million were appropriated for this purpose. (50) Through such programs as the School Dropout Rehabilitation Project, training is provided for the purpose of upgrading skills. The value of this training should be demonstrated in the world of work since by such kinds of empirical evidence can the value be truly determined.

Statement of the Problem

This dissertation is concerned with an investigation of differences in selected measures of vocational success between experimental and control groups of the 1964-65 School Dropout Rehabilitation Project in Oklahoma City, Oklahoma. The selected measures of vocational success, as operationally defined, are entry into the labor market, employment status, number of jobs held, number of days employed, weekly wages, job performance, and job satisfaction.

Need for the Study

In light of the vast sums being spent for retraining purposes, the effectiveness or ineffectiveness of Manpower Programs should be demonstrated in every way possible. Since the job is so important in the life of the individual, one significant measure of program effectiveness would be to demonstrate the success of its trainees in the world of work.

Hypotheses

Ho_1: The ratio of the number of subjects entering the labor market during the year following conclusion of training to the number of subjects not entering the labor market during the year following conclusion of training is the same for the combination, vocational, academic, and control groups.

Ho_2: The ratio of the number of subjects employed at the one year time following conclusion of training to the number of subjects unemployed at the one year time following conclusion of training is the same for the combination, vocational, academic, and control groups:

A. when considering the total number of subjects.

B. when considering only those subjects who entered the labor market.

Ho_3: There are no significant differences in the number of jobs held during the year following conclusion of training among the combination, vocational, academic, and control groups:

A. when considering the total number of subjects.

B. when considering only those subjects who entered the labor market.

Ho_4: There are no significant differences in the number of days employed during the year following conclusion of training among the combination, vocational, academic, and control groups:

A. when considering the total number of subjects.

B. when considering only those subjects who entered the labor market.

Ho_5: There are no significant differences in weekly wages of subjects employed one year following conclusion of training among the combination, vocational, academic, and control groups.

Ho_6: There are no significant differences in job performance rating scores of subjects employed one year following conclusion of training among the combination, vocational, academic, and control groups.

Ho_7: There are no significant differences in jobs satisfaction scores of subjects employed one year following conclusion of training among the combination, vocational, academic, and control groups.

Definition of Terms

1. Experimental Groups:

   A. Combination Group: Subjects in the study who received both vocational and academic training.

B. Vocational Group: Subjects in the study who received only vocational training.

C. Academic Group: Subjects in the study who received only academic training.

2. Control Group: Subjects in the study who received no training or who dropped out of training before completing 15% of the required course of study.

3. Job Performance Ratings: "A measure of the employee's total worth. It embraces not only quantity and quality of work, but also character, conduct, and personal qualifications." (35, p. 10)

4. Job Performance Rating Scores: The score derived from the immediate supervisor's responses to the behavior describing items on the Goertzel Job Success Scale.

5. Job Satisfaction: "The verbal expression of an incumbent's evaluation of his job. The verbal evaluation made operational by some form of attitude questionnaire or scale by means of which the incumbent rates his job on a continuum of "like-dislike" or other appropriate synonyms as 'satisfied-dissatisfied'." (21, p. 345)

6. Job Satisfaction Score: The score derived from a subject's responses to items of the Brayfield-Rothe Job Satisfaction Questionnaire.

7. Manpower Development and Training Act: A Federal Act, amended, under which various retraining programs have been established. Students in these programs are referred to in some instances as "Manpower Students" or "MDTA Students."

8. Vocational Success: Operationally defined in this study to mean

entry into the labor market, employment status, number of jobs held, days employed, weekly wages, job performance ratings, and job satisfaction.

CHAPTER II

REVIEW OF SELECTED LITERATURE

Introduction

Three patterns seem to emerge from studies located under such titles as job success, occupational success, success in the world of work, achievement, performance, adjustment, and satisfaction, when one reviews literature associated with the concept of vocational success. These patterns are: (1) Vocational success can be viewed from three different positions--personal success as viewed by the individual worker, successful performance as viewed by the employer, and success as viewed by society; (2) There are conflicting opinions as to whether a single criterion or multiple criteria better measures vocational success; (3) Both objective and subjective criteria have been considered adequate measures of vocational success.

Literature Review

Discussing a case study of a successful railroad worker, Hersey (18, p. 925) considers the question of vocational success to be part of total life adjustment in which abilities play an important part. His definition of success, "...adjustment to all the varied phases of one's life in line with one's abilities," reflects this view. He also suggests an individualistic subjective approach to success in his statement, "success for one man can never be success for another."

Lewin (26, p. 927), describing success from the individual worker's viewpoint, states, "success and failure does not depend upon achievement as such, but rather upon the relation between achievement and the person's expectation." To Lewin, vocational success is the personal subjective evaluation of how well the individual worker has achieved in light of his personal expectations.

Clark (10, p. 931) indicates that life earnings are the best criterion for measuring vocational success. Carefully pointing out that he does not mean hourly rates, weekly rates, or annual earnings, his statement, "life earnings are the best measure we have of the value to society of the work of the individual," not only reflects an opinion that vocational success can be measured against a single objective criterion, but also reflects a society oriented viewpoint of such success.

Speaking of vocational success primarily in terms of employee accomplishment on the job as viewed by the employer, Viteles (53, p. 205) stresses the need for a satisfactory standard of success before research is undertaken. He not only believes that the choice of criteria depends on the nature of the job and the aim of the research program, but also that such criteria can be both objective and subjective in nature. He lists possible objective criteria as: (1) quality of output, (2) quantity of output, (3) amount of spoiled work, (4) number of accidents, (5) cost of accidents, (6) length of service, (7) earnings on a commission basis, (8) earned bonus, (9) rate of advancement, (10) standard trade examination, and (11) number of operating mistakes. His list of subjective criteria includes several types of job performance rating scales.

Rasche (37, p. 937), pointing out the importance of personal-social characteristics, discusses vocational success as "occupational success" and defines the term as, "a test by which a judgement can be formed of an individual's success in the work at which he is employed." The personal-social characteristics which he indicates are important when measuring success are: (1) character and personal habits, (2) health and physique, (3) general education, (4) specialized skills, (5) personal traits and attitudes, (6) personality, and (7) personal appearance.

Discussing the difficulty of defining vocational success, Link (28, p. 934) reflects the viewpoint that such success is measurable against more than a single criterion. His statement, "there are many legitimate and practical criteria of vocational success," points out this fact. His list of such criteria which includes quantity and quality of output, length of service, stability, salary, and employer ratings, primarily reflects the viewpoint that vocational success is measurable against multiple subjective and objective criteria. However, pointing out the need for restricting the problem of criteria selection, Link also describes a worker to be successful, "so long as he is reasonably content and his employer is content to keep him." By the second statement, which adds the personal subjective evaluation by the individual worker to the list of "legitimate and practical criteria," he clearly indicates that he considers both the viewpoint of the employer and the viewpoint of the employee to be important positions from which to view vocational success.

Laird (24, p. 50), indicating the importance of considering intelligence, personality, interests, and special abilities, as factors when selecting employees, recommends obtaining measures of vocational success in physical units such as pounds, goods sold, and dollars earned. He also recommends measuring such criteria by mechanical means such as a counter or meter.

Stating an opinion that vocational success is most correctly viewed from the employer's position, Pond (34, p. 942) indicates a belief that the ultimate criterion of success or failure of factory workers is the judgement of the foreman. By the statement, "...the successful workers in any department are those who consistently advance the goals of the foreman and minimize his difficulties, namely, those who require the least supervision or training, who produce the quantity and quality of work desired, who show initiative and alertness in checking faulty conditions, and who cause the least friction of a personal nature, or obstruction in the work process," it also appears that he considers employee personal-social characteristics as important.

Discussing occupational ability patterns, Dodge (12, p. 97) indicates that he considers two objective criteria, job stability and salary, to be adequate measures of vocational success.

Anderson (1, p. 233), criticizing ratings as criteria of vocational success for clerical workers, indicates that only objective measures such as amount of work or number of errors should be used.

Bingham and Freyd (4 , p. 30) stress output as the best single criterion of vocational success providing such output is conditioned mainly by the worker's own ability and persistence and not by factors beyond his control. Their comprehensive list of success criteria includes: (1) time required to train an employee; (2) standing in corporation schools; (3) quantity and quality of output; (4) performance in standardized examinations; (5) accidents and loss due to breakage or claims; (6) salary; (7) commissions and bonuses; (8) length of service or stability on the job; (9) advancement in the firm or on the job; (10) degree of responsibility; (11) membership in professional societies; (12) trade status; (13) employer ratings.

Discussing the importance of intelligence, aptitudes, and interests, when considering any measure of vocational success, Kitson (23, p. 94) especially cites the use of employer rating scales and records of performance as indicators of success. He also advocates combining a number of measures of efficiency into one single index.

Wadsworth (54, p. 330), primarily concerned with the selection of employees using intelligence, aptitude, and temperament in his selection procedure, points out the need for a measure of success against which such procedures can be validated. He suggests the importance of both objective and subjective measures of vocational success in choosing quantity and quality of output and employer ratings as criteria against which to validate his instrument.

In another study dealing with the selection of employees, Wadsworth (55, p. 184) again chose employer ratings as his criterion of success. The rating form consisted of a three-point scale on which the supervisor checked whether he considered the employee outstanding, satisfactory, or a problem.

Beatty (3, p. 349), in an article concerned with predicting vocational achievement after graduation from college, considers two criteria to be adequate measures of vocational success. These are level of position held in the world or work and yearly salaries.

Conducting an extensive study of the work careers of 2,500 boys and girls over a ten-year period, Thorndike (48, p. 284) chose the multiple criteria approach when selecting measures of vocational success. The criteria he chose were average annual earnings in jobs held, levels of jobs held, and a measure of job satisfaction based on job interest.

Burt (8, p. 102), attempting to determine whether vocational guidance resulted in successful adjustment in the world of work, chose several different measures as criteria of success. Among these were employment in the advised occupation, job satisfaction, prospects for advancement, earning, number of job changes, and ratings by employers.

In a somewhat different study concerned with determining the qualities associated with success in the ministry, Moxcey (30, p. 101) chose to use the multiple criteria approach in selecting success criteria. The subjective and objective criteria were comparative salary, comparative performance, and employer ratings.

Both subjective and objective measures were used as criteria of success by Grauer (17, p. 328) in a study of sewing machine operators. The criteria used were hourly earnings and employee job satisfaction.

Shartle (43, p. 135), indicating that he considers one subjective criterion to be an adequate measure of vocational success, chose only supervisor's ratings when attempting to discover the psychological makeup of a successful foreman.

In an article dealing with the use of intelligence tests in selective placement of metal workers, Pond (33, p. 345) indicates that success should be primarily viewed from the employer's position by multiple subjective and objective criteria. He selected highest weekly pay, increase in earnings, terminations, and foreman's ratings, as his choice for success criteria.

The National Institute of Industrial Psychology (31, p. 14), conducting a study to determine an effective means of selecting personnel for high administrative positions, chose occupational stability as the criterion of success for department store executives. For bank managers, ratings of efficiency compared with tests of accuracy in checking, ability to analyze contents of letters, intelligence, general knowledge, and social and business tact, were chosen.

Davies (11, p.10), citing numerous studies in which such terms as proficiency, adjustment, and progress, were used as synonyms for vocational success, indicates the true measure of such success rests on an emotional base of personality and attitudes. His definition of success, "a pattern of attitudes built up towards a worker by himself and by those who have a claim to judge his performance in his working role," suggests that vocational success is measurable against multiple subjective criteria of satisfaction and satisfactoriness from both the employer's and employee's position.

Attempting to answer the question "What is occupational success and how can it be measured?," Stott (45, p. 105) suggests five different ways in which such success can be described. These are: (1) Occupational Competence, defined as the satisfactoriness with which the worker performs his duties and measured by quantity of work, quality of work and employer ratings; (2) Occupational progress, defined as upward mobility toward increasing responsibility and measured by profit, wage, or promotion; (3) Occupational satisfaction, defined as emotional satisfaction and measured by job satisfaction attitude scales; (4) Occupational fitness, defined as the adequate matching of the person and the job; (5) Occupational adjustment, defined as acceptance of the occupational fitness and measured by job satisfaction scales.

Fiske (13, p. 95), discussing vocational success from the employer's viewpoint or position, indicates that criteria of success should be systematically derived from a knowledge of the goals and objectives of the particular organization and should reflect the degree to which the individual worker assists the organization to attain its goals. Defining vocational success as "organizational worth," he indicates that criteria frequently used in the past such as amount of work done or supervisor's ratings have not truly measured vocational success because they have been selected by value-judgements without regard for organizational goals.

Warren (57, p. 28), in a study concerned with training factors associated with the success or failure of cooperative extension workers, chose the multiple objective-subjective approach in selecting criteria of vocational success. He considered the workers to be successful if they had at least five years service and were given merit increases in salary and promotions. Persons considered unsuccessful were either those who had been discharged, forced to resign, or after a minimum of five years service were still considered as not meeting the acceptable standard of performance. Job performance was measured by the supervisor's subjective evaluation of the worker.

Brooks (7, p. 111), reporting on the vocational success of hard-core unemployed and underemployed persons retrained in a Manpower Program at Norfolk State College, chose two objective criteria against which to evaluate the program. These were employment status and hourly salary.

Describing the results of a community action training program set up in Duluth for retraining underemployed and unemployed persons, Hill (20, p. 6) chose the single objective criterion of employment status as the measure of vocational success and reports that 80% of the persons successfully completing the program were fully employed six months after training.

Hill (20, p.7) also describes a training program set up for the purpose of training underemployed and unemployed persons in stevedore skills. He again chose the single objective criterion of employment status as the criterion against which to measure whether the program had been successful in assisting the trainees to achieve success vocationally. He reports that nearly all of the program finishers were fully employed in work areas for which they were trained six months after completion of training.

Super (46, p. 179), reviewing studies in which criteria such as earnings, output, advancement, stability, and employer ratings, were used as measures of vocational success, indicates that such success can be viewed from both external and internal frames of reference since "success is not only a social or objective matter, but also a personal or subjective matter." He also indicates that there is no single criterion of vocational success because the selection of criteria "must vary with the purpose one has in mind."

Discussing the relationship between vocational adjustment and vocational success, Super, et al. (47, p. 102), indicate their belief that vocational success is measurable against multiple criteria by the statement, "Vocational success may be judged by the efficiency of the individual's performance on the job, by the monetary and prestige rewards accruing from his work, and by the place which he makes for himself in his occupation and on the occupational ladder." Their statement, "success by one of these criteria can be judged from the perspective of the individual, from that of important other persons in his environment, such as his supervisor, his peers, and his family, or from that of the community in general," also indicates an opinion that there are different positions from which to view vocational success.

Anthony J. Celebreese (9, p. 3), former Secretary of the Department of Health, Education, and Welfare, indicated society's position on vocational success when he stated that the criteria for an adequate evaluation of the Manpower Program should be "how well the trainees perform their jobs, how long they keep their jobs, and how well they fit into the new environment in which their upgraded skills place them." By this statement, Celebreese not only implied that adequate evaluation should primarily focus on the vocational success of the trainees, but also that such success should be measured against more than a single criterion.

Summary

The review of literature has indicated that numerous measures have been used as criteria of vocational success. Generally, these measures can be classified as both objective and subjective in nature viewing vocational success from three different positions--that of the individual worker, the employer, and society.

Seven different measures have been selected from the literature as criteria against which to view vocational success. These seven measures, entry into the labor market, employment status, number of jobs held, days employed, weekly wages, job performance, and job satisfaction, are both objective and subjective in nature and encompass the three positions from which to view vocational success.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The primary objective of this dissertation is to investigate differences in selected measures of vocational success among experimental and control groups of the 1964-65 MDTA School Dropout Rehabilitation Program in Oklahoma City, Oklahoma.

The objective of this chapter is to present : (1) A discussion of the MDTA Program and the Ford Foundation research project; (2) The basic plan for this dissertation; (3) A description of data collection; (4) A description of instruments; and (5) A discussion of statistical procedures.

The MDTA Program and the Ford Project

The initial selection and subsequent assignment of persons to training in the Manpower Development and Training Act Program in Oklahoma City was done by personnel of the Oklahoma State Employment Security Commission according to guidelines established in the Manpower Development and Training Act of 1962, amended. To be eligible for the particular training program under consideration, persons had to be: (1) unemployed or underemployed school dropouts, (2) between the ages of 17-22, (3) out of school for at least one year, and (4) judged to have a reasonably good chance of successfully completing the program.

The latter requirement was designed to restrict training to those persons who did not have obvious physical or mental handicaps which would hinder their progress in training. It was estimated that 2,000 persons in the Greater Oklahoma City Area could meet these four criteria. (25) The actual assignment to training was done by Employment Security Commission personnel after considering information gained from administration of various test instruments and personal interviews.

In November, 1963, prior to the formulation of the MDTA Program, Oklahoma State University received a three year grant from the Ford Foundation to study the participants. Two Oklahoma State University staff members, J. Paschal Twyman and Victor O. Hornbostel, worked closely with the MDTA and Oklahoma State Employment Security Commission personnel attempting to establish experimental curricula and random selection procedures which would most closely adhere to true experimental design. The Ford project staff were successful in assisting the MDTA personnel in the establishment of the desired experimental curricula but were unsuccessful in the attempt to obtain random assignment of all trainees to the various experimental programs. Twyman et al. (49), indicating this fact, state:

> The initial plan of the project was that from sets of youth who were eligible for the several types of training offered, each would be assigned at random to one of the experimental or control groups. Since this was a public program, strict adherence to the desired procedure could not be maintained.

Three experimental curricular groups and one control group were eventually established and participants were selected to receive training. These groups were: (1) The combination group consisting of persons who were selected to receive a combination of vocational and academic training; (2) The vocational group consisting of persons who were selected to receive only vocational training; (3) The academic group consisting of persons who were selected to receive only academic training; and (4) The control group consisting of persons who were selected to receive no training.

Students assigned to the combination group received instruction in one of the following vocational areas: general office clerk, refresher; machine tool operator; stenographer, refresher; welder, combination; office machine mechanic; sheet metal, production; cosmetology; or auto mechanics. They also received separate instruction in academic areas which included social science, English, science, and mathematics.

Students assigned to the vocational group received only vocational skill training. Students assigned to the academic group received instruction only in the academic areas.

Students who received the combination training had the same teachers for their respective vocational classes as those who received only vocational training. Similarily, students who received the combination training had the same teachers for their academic classes as did those receiving only academic training. Table I presents the number of persons selected for inclusion in the MDTA Program.

Persons selected by Commission personnel to receive training within these experimental and control groups became subjects in the Ford project study. For investigative purposes, the Ford staff formulated two other control groups consisting of subjects who dropped out of training before completing 15% of the required course of study and subjects who dropped out of training after completing more than 15%.

TABLE I

SUBJECTS SELECTED BY THE OKLAHOMA STATE EMPLOYMENT SECURITY COMMISSION FOR INCLUSION IN THE MDTA PROGRAM

SKILL TRAINING	COMBINATION	VOCATIONAL	ACADEMIC	CONTROL
General Office Clerk, Refresher	21	9		
Machine Tool Operator	11	11		
Stenographer, Refresher	23	11		
Combination Welder	8	15		
Office Machine Mechanic	12	9		
Production Sheet Metal	9	12		
Cosmetology	25	31		
Auto Mechanics	9	17		
No Skill Training			59	46
Totals	118	115	59	46

While working as a member of the Ford Project Research Team, the writer became interested in studying the concept of vocational success. Not only was permission given by the Ford project directors to expand the investigation of this topic beyond the limits of the original plan, but also the opportunity was extended to utilize certain information gained through the project's follow-up procedures. The original project plan has been broadened to include data-gathering instruments and techniques of analyses which permits the concept of vocational success to be investigated more comprehensively from a theoretical base.

Later, the writer applied for and received a grant in support of the dissertation from the United States Department of Labor. This Grant, # 91-38-66-50, is funded for the time period August 1, 1966-May 31, 1967.

Basic Plan for the Study

Two hundred and seventeen subjects in the Ford project were identified as potential subjects for this study. These included 75 persons who completed training within the combination curriculum, 55 persons who completed training within the vocational curriculum, 34 persons who completed training within the academic curriculum, and 53 persons who were designated as control subjects. The group of control subjects consisted of 28 persons who received no training and 25 persons who dropped out of training before completing 15% of the required course of study. The 25 early program dropouts were added to the group of pure controls in order to increase the size of that group.

The basic plan was to obtain data on as many of the 217 potential subjects as possible in order to investigate and attempt to determine whether they differ with respect to several measures of vocational success. Table II lists the 162 subjects for this study selected from among 217 potential subjects. The criterion for selection was complete data on all variables under consideration in this investigation.

Essentially, the design for the study is neither truly experimental nor quasi-experimental but can more properly be considered an _ex post facto_ design where the experimental and control groups are statistically compared only on posttest vocational success data.

Kerlinger (22, P. 360) defines this type of research as:

> ...that research in which the independent variable or variables have already occurred and in which the researcher starts with the observation of a dependent variable or variables. He then studies the independent variables in retrospect for their possible relations to, and effects on, the dependent variable or variables.

TABLE II

SUBJECTS FOR THE STUDY

SKILL AREA	COMBINATION	VOCATIONAL	ACADEMIC	CONTROL
General Office Clerk, Refresher	18 (18)	5 (5)		
Machine Tool Operator	9 (5)	6 (3)		
Stenographer, Refresher	13 (13)	7 (6)		
Combination Welder	6 (3)	12 (5)		
Office Machine Mechanic	7 (4)	8 (5)		
Production Sheet Metal	3 (2)	4 (3)		
Cosmetology	16 (12)	7 (5)		
Auto Mechanics	3 (2)	6 (3)		
	75[a] (59)[b]	55[a] (35)[b]	34[a] (28)[b]	53[a] (40)[b]

[a] Potential subjects.

[b] Subjects for this study.

This writer is aware that an ex post facto design is theoretically less scientific than true experimental design. However, he is also aware that much research of this type is both necessary and desirable in attacking educational problems where little control is possible. Kerlinger (22, p. 372), warning of the danger of improper interpretation when conducting research of this type, points out its value.

> Despite its weaknesses, much ex post facto research must be done in psychology, sociology, and education simply because many research problems in the social sciences and education do not lend themselves to experimental inquiry. Even if we would avoid ex post facto research, we cannot. It can even be said that ex post facto research is more important than experimental research. This is, of course, not a methodological observation. It means, rather, that the most important social, scientific, and educational research problems do not lend themselves to experimentation, although many of them do lend themselves to controlled inquiry of the ex post facto design. If a tally of sound and important studies in psychology, sociology, and education were made, it is likely that ex post facto studies would outnumber and outrank experimental studies.

Data Collection

The Ford project staff under the direction of Associate Director John C. Egermeier developed the Youth Opportunity Follow-Up Survey Form (Appendix B) to be administered to subjects at six-month intervals following training. This instrument was designed so that it could either be administered in face-to-face interviews to subjects living in the Greater Oklahoma City Area or mailed to subjects residing outside the Area. Several qualified counselors were employed to assist with the follow-up interviews.

The varying length of time spent in vocational skill training resulted in differing completion dates for subjects and made it necessary for the Ford staff to formulate a staggered follow-up schedule. Every effort was made to conduct the follow-ups at exact six-month intervals following the completion dates. Table III lists the schedule for the first six-month and one year follow-ups.

TABLE III

FORD PROJECT'S FOLLOW-UP SCHEDULE

TYPE OF TRAINING[a]	WEEKS IN TRAINING	COMPLETION DATES	6 MONTHS SCHEDULE	1 YEAR SCHEDULE
General Office Clerk, Refresher	20	12-18-64	July,1965	Jan.,1966
Stenographer, Refresher	26	1-29-65	Aug.,1965	Feb.,1966
Combination Welder	26	1-29-65	Aug.,1965	Feb.,1966
Machine Tool Operator	26	1-29-65	Aug.,1965	Feb.,1966
Office Machine Mechanic	36	4-9-65	Nov.,1965	April,'66
Production Sheet Metal	36	4-9-65	Nov.,1965	April,'66
Cosmetology	43	5-28-65	Dec.,1965	May, 1966
Auto Mechanics	48	6-30-65	Jan.,1966	July,1966
Academic	43	5-28-65	Dec.,1965	May, 1966
Controls	None		Sept. & Dec.,1965[b]	March & June,1966[b]

[a] All subjects receiving a given skill course terminated at the same time whether receiving academic instruction in conjunction with it or not.

[b] Control group subjects were divided on a random basis into two groups which were followed up during different periods of the year in an effort to offset possible effects of seasonability of employment.

Information pertinent to this study was taken from both the first six months and one year follow-up forms. This information was recorded and all employers were contacted as part of the writer's personal follow-up. In cases where discrepencies existed between the information received from subjects and the information contained in the employer's files, the information received from the employer was used. A comprehensive job history was kept for each subject during the year following completion of training.

Data regarding number of jobs held, entry into the labor market, employment status, wages, and days employed, were collected primarily in face-to-face interviews with subjects and employers. Those subjects and employers who resided outside the Greater Oklahoma City Area were contacted by mail.

Job satisfaction expressed by subjects was assessed by means of the Brayfield-Rothe Job Satisfaction Questionnaire (Appendix B). Permission was given by the Ford project staff to attach this questionnaire to the Youth Opportunity Follow-Up Survey Form. This instrument was administered primarily by project counselors in face-to-face interviews with subjects living in the Greater Oklahoma City Area. Those subjects who resided outside the City Area were contacted by mail.

The instrument chosen to measure job performance, the Goertzel Job Success Scale (Appendix B), was administered to employers residing in the Greater Oklahoma City Area by means of face-to-face interviews conducted by a qualified counselor retained for that purpose. Those subjects who resided outside the City Area were contacted by mail.

For this study, the one year time interval following training for those subjects completing training within the combination, vocational, and academic curricula refers to the 365 calendar days immediately following the completion schedule for their respective training groups. Since the control group had no formal completion schedule, it was necessary to assign a one year time interval. The time interval, March 1, 1965 - March 1, 1966, was chosen because it not only parallels the Ford Project's follow-up schedule, but because it also occurs approximately midway between the completion dates for subjects in the three experimental groups. (See Table III, p. 27)

Instrumentation

The instrument chosen to obtain employer's rating of the overall performance of subjects working on different jobs is the Goertzel Job Success Rating Scale, Form A (16), developed by V. Goertzel at the University of California. The Scale is used in this study to obtain a measure of subject's vocational success viewed from the employer's position.

The instrument is a Thurstone-type check list consisting of twenty-five weighted descriptive items which are characteristic of poor, average, and superior workers. The employer is asked to check only those items which characterize or describe the worker under consideration. Weights of the checked items are averaged to obtain one score which indicates worker performance.

Goertzel administered the Scale in several industrial settings in order to establish reliability and a more acceptable measure of validity aside from the construction procedure.

The validity coefficient calculated by correlating Form A and employer rankings of clerical workers was .83. The reliability coefficient calculated by the alternate form method and corrected by the Spearman-Brown Formula was .90.

The validity coefficient calculated by correlating Form A and employer rankings of production workers was .75. The reliability coefficient was .80.

A validity coefficient of .93 was obtained between Form A and the total group of employer rankings, including clerical and production workers. This coefficient was established across occupational boundaries and with rankings by different employers. A reliability coefficient of .81 was calculated for the total group of workers by the alternate form method.

Ghiselli and Brown (15, p. 117), discussing the check list method in general and Goertzel's Scale in particular state:

> Its advantage lies in the fact that the procedure permits the rater to make more precise and less ambigious expressions of his opinion concerning the worthiness of the individual being judged. In some instances it is desirable to obtain a rating of over-all performance for comparing persons on different jobs. Goertzel has developed a rating form of scaled items for such generalized use. Application of this form to various job groups gave reliability coefficients as high as those reported for specific jobs. These findings suggest that such generalized rating forms will give accurate appraisals of workers on jobs differing in many characteristics.

The Brayfield-Rothe Job Satisfaction Questionnaire (6) was chosen to measure subjects' personal satisfaction toward jobs because it is currently being used in the Ford dropout study, is brief and easy to administer and score, and is applicable to a wide variety of jobs. It is used in this study as a measure of vocational success viewed from the individual employee's position.

The instrument is based on attitude scaling theory which assumes that job satisfaction can be inferred from an individual's attitude toward his job. Eighteen Thurstone-scaled items are contained in the instrument. The subject is asked to indicate whether he strongly agrees, agrees, is undecided, disagrees, or strongly disagrees with each of the eighteen statements. The responses are assigned weights ranging from 1 to 5. A total score is derived from the summation of the eighteen weighted responses. Scores of each subject range from eighteen through ninety with a neutral or indifferent point at fifty-four.

Wallace (56, p. 15), discussing the instrument, states:

> The Brayfield-Rothe was first constructed on the Thurstone attitude scaling technique. To refine the scoring and make the instrument more applicable to a wide range of attitudes, the Likert technique was applied to the instrument by Brayfield and Rothe. Briefly, the Likert Scale attempts to locate individuals on a positive-negative attitude continuum. The technique requires the individual to indicate the direction and degree of affect he feels concerning an object, event, or state of affairs, with the responses being made on a five point continuum.

Several studies are reported in the literature dealing with reliability and validity of the Questionnaire.

Brayfield and Margelsdorf (5), administering the Questionnaire to 55 plumber apprentices, found a corrected split-half reliability coefficient of .83. Brayfield and Rothe (6), report an odd-even product moment reliability of .77 corrected to .87 by the Spearman-Brown Formula for 231 women office employees.

Schletzer (39), administering various satisfaction blanks to professional men, obtained a .87 validity correlation between the Brayfield-Rothe Questionnaire and the Hoppock Blank. He also obtained a .67 validity correlation between the Brayfield-Rothe Questionnaire and the Job Dimensions Inventory.

Statistical Procedures

The following discussion deals with the statistical procedures used in this study to analyze data.

The chi square test for k independent samples discussed by Siegel (44, p. 174) was used to test for differences in entry into the labor market during the year following conclusion of training among the experimental and control groups. If a difference at the .05 level of significance was found, the chi square test for two independent samples (44, p. 104) was used to test for differences between groups.

The chi square test for k independent samples discussed above was used to test for differences in employment status at the one year time following conclusion of training among the experimental and control groups. If a difference at the .05 level of significance was found, the chi square test for two independent samples was used to test for differences between groups.

The statistical methods discussed in regard to the employment status variable were applied in two separate analyses.

(1) First Analysis: The total group of 162 subjects were considered in this analysis. Those subjects considered employed were those who were gainfully employed on the 365th calendar day following completion of training. Those subjects who were not gainfully employed on the 365th calendar day immediately following completion of their respective groups were considered unemployed.

(2) Second Analysis: Only those subjects who were in the labor market during the year following training were considered in this analysis. Those subjects considered employed at the one year time following completion of training were those who were gainfully employed

on the 365th calendar day following completion of training. Those subjects considered unemployed were those who were not gainfully employed on the 365th calendar day immediately following completion of their respective groups but who were either employed during the year or were actively seeking work. Those subjects who were neither employed during the year following conclusion of training nor were actively seeking work were excluded from consideration in this analysis.

The Kruskal-Wallis One-Way Analysis of Variance by Ranks test discussed by Siegel (44, p. 184) was used to test for differences in the number of jobs held and the number of days employed during the year following training among the experimental and control groups. If differences at the .05 level of significance were found, the Mann-Whitney U test (44, p. 116) was used to test for differences between groups.

The statistical methods discussed in regard to the number of jobs held and the number of days employed were used in two separate analyses.

(1) First Analysis: The total group of 162 subjects were considered in this analysis.

(2) Second Analysis: Only those 129 subjects who were in the labor market during the year following completion of training were considered in this analysis. Those subjects who did not work during the twelve months immediately following training or were not actively seeking work were excluded.

The Kruskal-Wallis test was used to test for differences in weekly wages, job satisfaction scores, and job performance rating scores among the experimental and control groups. If differences at the .05 level of significance were found, the Mann-Whitney U test was used to test for significant differences between groups. Only those 81 subjects who were employed on the 365th calendar day immediately following the completion date of their respective groups were considered in this analysis.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this chapter is to present the results of statistical analyses of the data. The .05 level of probability was used to judge the significance of all statistical tests. The alternate hypotheses were non-directed; therefore, two-tailed tests of significance were employed.

Hypotheses were tested in the order listed in Chapter One. To further analyze the data, between group statistical comparisons of all possible pairs of groups were made immediately following any rejected hypothesis. Analyses relating to some of these comparisons between groups are presented in Appendix C.

The results are summarized at the end of this chapter.

Testing of Hypotheses

Hypothesis 1: The ratio of the number of subjects entering the labor market during the year following conclusion of training to the number of subjects not entering the labor market during the year following conclusion of training is the same for the combination, vocational, academic, and control groups.

A chi square test for k independent samples described by Siegel (44, p. 175) was used to test this hypothesis. The result of the analysis is presented in Table IV. The calculated chi square value of 10.04 was significant at the .05 level of probability; therefore, the null hypothesis was rejected. This result indicated a significant difference for the four groups in the ratio of the number of subjects entering the labor market to the number of subjects not entering the labor market.

TABLE IV

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING

Groups	In Labor Market	Not in Labor Market	Totals
Combination	48	11	59
Vocational	33	2	35
Academic	22	6	28
Control	26	14	40
Totals	129	33	162
Chi Square: 10.04	df: 3		$.01 < p < .02$

Chi square tests for two independent samples described by Siegel (44, p. 104) were calculated to further analyze the data in an effort to determine significant differences between pairs of groups. These comparisons are presented in Table V. Only the chi square value of 7.87 calculated between the vocational group and the control group exceeded the chi square value of 3.84 associated with a probability of .05. These results indicated that significant differences existed only between the vocational group and the control group with the ratio of the number of subjects entering the labor market to the number of subjects not entering the labor market being greater for the vocational group.

TABLE V

COMPARISONS BETWEEN PAIRS OF GROUPS ON LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING

Comparisons	Chi Square	Probability
Combination vs Control	2.57	$.10 < p < .20$
Vocational vs Control	7.87	$.001 < p < .01$
Academic vs Control	.88	$.30 < p < .50$
Combination vs Vocational	2.09	$.10 < p < .20$
Combiantion vs Academic	.0003	$.95 < p < .98$
Vocational vs Academic	2.19	$.10 < p < .20$

Hypothesis 2A: The ratio of the number of subjects employed at the one year time following conclusion of training to the number of subjects unemployed at the one year time following conclusion of training is the same for the combination, vocational, academic, and control groups when considering the total number of subjects.

A chi square test for k independent samples was made in order to test this hypothesis. The resulting analysis is presented in Table VI. The calculated chi square value of 14.87 exceeded the tabled chi square value of 7.82 associated with a probability of .05. This result indicated that significant differences did exist for the four groups; therefore, the null hypothesis was rejected.

TABLE VI

ANALYSIS OF THE EMPLOYMENT STATUS OF THE TOTAL NUMBER OF SUBJECTS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	Employed	Unemployed	Totals
Combination	34	25	59
Vocational	24	11	35
Academic	12	16	28
Control	11	29	40
Totals	81	81	162
Chi Square: 14.87	df: 3		$.001 < p < .01$

Chi square tests for two independent samples were calculated to further analyze the data in an effort to determine significant differences between pairs of groups. These comparisons are presented in Table VII. Chi square values of 7.52 and 11.06 calculated between the combination group and the control group and between the vocational group and the control group, respectively, exceeded the tabled chi square value of 3.84 associated with a probability of .05. These results indicated that significant differences existed only between the combination group and the control group and between the vocational group and the control group. The ratios of the number of subjects employed to the number of subjects unemployed were greater for the combination and vocational groups.

TABLE VII

COMPARISONS BETWEEN PAIRS OF GROUPS OF THE EMPLOYMENT STATUS OF THE TOTAL NUMBER OF SUBJECTS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Comparisons	Chi Square	Probability
Combination vs Control	7.52	$.001 < p < .01$
Vocational vs Control	11.06	$< p < .001$
Academic vs Control	1.12	$.20 < p < .30$
Combination vs Vocational	.70	$.30 < p < .50$
Combination vs Academic	1.12	$.20 < p < .30$
Vocational vs Academic	3.22	$.05 < p < .10$

Hypothesis 2B: The ratio of the number of subjects employed at the one year time following conclusion of training to the number of subjects unemployed at the one year time following conclusion of training is the same for the combination, vocational, academic, and control groups *when considering only those subjects who entered the labor market during the year following conclusion of training*.

A chi square test for k independent samples was made in order to test this hypothesis. The resulting analysis is presented in Table VIII. The calculated chi square value of 8.04 exceeded the tabled chi square value of 7.82 associated with a probability of .05. This result indicated that significant differences did exist for the four groups; therefore, the null hypothesis *was* rejected.

TABLE VIII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Combination	34	14	48
Vocational	24	9	33
Academic	12	10	22
Control	11	15	26
Totals	81	48	129

Chi Square: 8.04   df: 3 $.02 < p < .05$

Comparisons between pairs of groups are presented in Table IX. Chi square values of 4.62 and 4.39 calculated between the combination group and the control group and between the vocational group and the control group, respectively, exceeded the tabled chi square value of 3.84 associated with a probability of .05. As in the case where the total number of subjects was considered (Hypothesis 2A), the results indicated that significant differences existed only between the combination group and the control group and between the vocational group and the control group with the ratios of the number of subjects employed to the number of subjects unemployed being greater for the combination and vocational groups.

TABLE IX

COMPARISONS BETWEEN PAIRS OF GROUPS ON EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Chi Square	Probability
Combination vs Control	4.62	$.02 < p < .05$
Vocational vs Control	4.39	$.02 < p < .05$
Academic vs Control	.31	$.50 < p < .70$
Combination vs Vocational	.005	$.90 < p < .95$
Combination vs Academic	1.13	$.20 < p < .30$
Vocational vs Academic	1.21	$.20 < p < .30$

TABLE X

KRUSKAL-WALLIS TEST OF NUMBER OF JOBS HELD DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Number of Subjects	Average Number of Jobs Held	Sum of Ranks	Average Ranks
Combination	59	1.56	4932.0	83.59
Vocational	35	1.66	3061.0	87.46
Academic	28	1.79	2456.0	87.71
Control	40	1.25	2754.0	68.85
$\underline{H}$= 4.33		df: 3		$.20 < p < .30$

Hypothesis 3A: There are no significant differences in the number of jobs held during the year following conclusion of training among the combination, vocational, academic, and control groups when considering the total number of subjects.

The Kruskal-Wallis One-Way Analysis of Variance by Ranks test described by Siegel (44, p. 184) was made in order to test this hypothesis. The analysis is presented in Table X. The calculated H value was 4.33 and the required value for significance was 7.82. This result indicated that significant differences did not exist among the four groups; therefore, the null hypothesis was not rejected.

Hypothesis 3B: There are no significant differences in the number of jobs held during the year following conclusion of training among the combination, vocational, academic, and control groups when considering only those subjects who entered the labor market during the year following conclusion of training.

The result of the Kruskal-Wallis test is presented in Table XI. The calculated H value was 2.18 and the required value for significance at the .05 level was 7.82. This result indicated that significant differences did not exist among the experimental and control groups; therefore, the decision was made not to reject the null hypothesis.

Hypothesis 4A: There are no significant differences in the number of days employed during the year following conclusion of training among the combination, vocational, academic, and control groups when considering the total number of subjects.

The analysis is presented in Table XII. The calculated H value exceeded the tabled value associated with a probability of .05. This indicated that significant differences existed among the experimental

TABLE XI

KRUSKAL-WALLIS TEST OF NUMBER OF JOBS HELD DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	N	Mean Jobs	Sum of Ranks	Average Ranks
Combination	48	1.92	3139.0	65.40
Vocational	33	1.76	1977.5	59.92
Academic	22	2.27	1631.0	74.14
Control	26	1.92	1637.5	62.98
H= 2.18		df: 3		$.50 < p < .70$

TABLE XII

KRUSKAL-WALLIS TEST OF NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	N	Mean Days Employed	Sum of Ranks	Average Ranks
Combination	59	189	5459.0	92.53
Vocational	35	216	3584.5	102.41
Academic	28	139	2120.0	75.71
Control	40	64	2039.5	50.99
H= 28.10		df: 3		$p < .001$

and control groups; therefore, the decision was made to reject the null hypothesis.

Comparisons between pairs of groups computed by Mann-Whitney U tests (44, p. 116) are presented in Table XIII. Obtained Z values of 4.23, 4.60, and 2.50 calculated between the combination group and the control group, between the vocational group and the control group, and between the academic group and the control group, respectively, exceeded the critical value of 1.96. An obtained Z value of 2.43 calculated between the vocational group and the academic group also exceeded the critical value. These results indicated that subjects in each of the experimental groups were employed a significantly greater number of days than were subjects in the control group. The results also indicated that subjects in the vocational group were employed a significantly greater number of days than were subjects in the academic group.

Hypothesis 4B: There are no significant differences in the number of days employed during the year following conclusion of training among the combination, vocational, academic, and control groups when considering only those subjects who entered the labor market during the year following conclusion of training.

The result of the Kruskal-Wallis test is presented in Table XIV. The calculated H value of 24.03 exceeded the tabled value of 7.82 associated with a probability of .05. This result indicated that significant differences existed among the experimental and control groups; therefore, the null hypothesis was rejected.

TABLE XIII

COMPARISONS BETWEEN PAIRS OF GROUPS OF THE NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Sum of Ranks	Average Ranks	Z	Probability
Combination	3534.5	59.91	4.23	p=.0006
vs				
Control	1385.5	34.64		
Vocational	1757.5	50.21	4.60	p=.0006
vs				
Control	1092.5	27.31		
Academic	1161.5	41.48	2.50	p=.0124
vs				
Control	1184.5	29.61		
Combination	2673.0	45.31	1.02	p=.31
vs				
Vocational	1972.0	51.20		
Combination	2778.5	47.09	1.67	p=.10
vs				
Academic	1049.5	37.48		
Vocational	1295.0	37.00	2.43	p=.02
vs				
Academic	721.0	25.75		

TABLE XIV

KRUSKAL-WALLIS TEST OF NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	N	Mean Days Employed	Sum of Ranks	Average Ranks
Combination	48	232.60	3660.0	76.25
Vocational	33	228.67	2501.0	75.79
Academic	22	176.91	1295.0	58.86
Control	26	98.69	923.0	35.50
$\underline{H}$= 24.03		df: 3		$p < .001$

Comparisons between pairs of groups computed by Mann-Whitney U tests are presented in Table XV. Obtained $\underline{Z}$ values of 4.55, 3.68, and 2.58 calculated between the combination group and the control group, between the vocational group and the control group, and between the academic group and the control group, respectively, exceeded the critical value of 1.96. A calculated $\underline{Z}$ value computed between the combination group and the academic group equaled the critical value associated with a probability of .05. These results indicated that subjects in each of the experimental groups were employed a significantly greater number of days than were subjects in the control group. The results also indicated that subjects in the combination group were employed a significantly greater number of days than were subjects in the academic group.

Hypothesis 5: There are no significant differences in weekly wages of subjects employed one year following conclusion of training among the combination, vocational, academic, and control groups.

The result of the Kruskal-Wallis test is presented in Table XVI. The calculated H value of 5.75 was less than the tabled value of 7.82 associated with a probability of .05. Though average weekly wages shown in Table XVI indicate that subjects in each of the experimental groups and especially those subjects in the combination and vocational groups earned higher wages than did subjects in the control group, differences were not great enough to be statistically significant. Therefore, the null hypothesis was not rejected.

TABLE XVI

KRUSKAL-WALLIS TEST OF WEEKLY WAGES FOR THOSE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Average Weekly Wages	Sum of Ranks	Average Ranks
Combination	34	$66.73	1517.5	44.63
Vocational	24	$65.99	1070.5	44.60
Academic	12	$57.91	436.0	36.33
Control	11	$49.95	297.0	27.00
H= 5.75		df: 3		$.10 < p < .20$

Hypothesis 6: There are no significant differences in job performance rating scores of subjects employed one year following conclusion of training among the combination, vocational, academic, and control groups.

The result of the Kruskal-Wallis test is presented in Table XVII. The obtained H value of 5.91 was less than the tabled value associated with a probability of .05.

Mean job performance rating scores shown in Table XVII indicate that subjects in each of the three experimental groups were rated higher by their supervisors than were subjects in the control group. However, results of the statistical test suggested that differences were not great enough to be statistically significant. Therefore, the null hypothesis was not rejected.

TABLE XVII

KRUSKAL-WALLIS TEST OF JOB PERFORMANCE RATING SCORES FOR THOSE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Average Job Performance Scores	Sum of Ranks	Average Ranks
Combination	34	37.52	1481.5	43.57
Vocational	24	36.30	994.5	41.44
Academic	12	37.67	563.5	46.96
Control	11	28.97	281.5	25.59

$H = 5.91$ df: 3 $.10 < p < .20$

Hypothesis 7: There are no significant differences in job satisfaction scores of subjects employed one year following conclusion of training among the combination, vocational, academic, and control groups.

The result of the Kruskal-Wallis test is presented in Table XVIII.

The calculated H value of 2.75 was less than the tabled value associated with a probability of .05. This result indicated that significant differences did not exist among the four groups; therefore, the null hypothesis was not rejected.

TABLE XVIII

KRUSKAL-WALLIS TEST OF JOB SATISFACTION SCORES FOR THOSE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Average Job Satisfaction Scores	Sum of Ranks	Average Ranks
Combination	34	66.94	1531.5	45.04
Vocational	24	63.96	966.5	40.27
Academic	12	58.83	386.5	32.21
Control	11	63.09	436.5	39.68
$H = 2.75$		df: 3		$.20 < p < .50$

Summary of Results

The purpose of this section is to summarize the results of the statistical analyses carried out in conjunction with the several hypotheses. The .05 level of probability was used to determine the significance of all tests. Additional analyses which are not discussed in the body of this report but which may be of interest to some readers are presented in Appendix D. Conclusions and recommendations are presented in the final chapter.

Analyses comparing experimental and control groups when considering the total number of 162 subjects disclosed the fact that significant differences existed for the four groups on three vocational success variables. These variables were entry into the labor market during the year following training, employment status one year following training, and the number of days employed during the year following training. Non-significant differences for the four groups were noted on one vocational success variable--the number of jobs held during the year following training.

Hypotheses relative to the first three variables were rejected. The hypothesis relative to the latter variable, the number of jobs held during the year following training, was not rejected.

Analyses between all possible pairs of groups were made following the rejection of the three hypotheses. Comparisons between pairs of groups on entry into the labor market indicated that significant differences existed only between the vocational and control groups with the ratio of the number of subjects entering the labor market to the number of subjects not entering the labor market being greater for the vocational group.

Comparisons between pairs of groups on employment status suggested that significant differences existed between the combination group and the control group and between the vocational group and the control group with the ratios of the number of subjects employed to the number of subjects not employed being greater for the two experimental groups.

Comparisons between pairs of groups on the number of days employed during the year following training suggested that each of the three experimental groups were employed a significantly greater number of days than were subjects in the control group. Subjects in the vocational group were also found to be employed a significantly greater number of days than were subjects in the academic group.

Analyses comparing experimental and control groups when considering only those 129 subjects who entered the labor market during the year following training disclosed the fact that significant differences existed for the four groups on two vocational success variables. These variables were employment status at the one year time following training and the number of days employed during the year following training. Non-significant differences were noted on one vocational success variable--the number of jobs held during the year following training.

As occurred in the case when the total number of 162 subjects was considered, the hypotheses relative to employment status and the number of days employed during the year were rejected. The hypothesis relative to the number of jobs held during the year following training was not rejected.

Comparisons between pairs of groups on employment status and the number of days employed resulted primarily in the same findings as when the total number of 162 subjects was considered. The exception occurred on the variable dealing with the number of days employed where subjects in the combination group instead of subjects in the vocational group were found to be employed a significantly greater number of days than were subjects in the academic group.

Analyses comparing experimental and control groups when considering only those 81 subjects who were employed at the one year time following training indicated that significant differences did not exist among the four groups on three vocational success variables. These variables were weekly wages, job performance rating scores, and job satisfaction scores.

CHAPTER V

SUMMARY, LIMITATIONS, AND CONCLUSIONS

Summary

The primary purpose of this study was to evaluate three experimental curricular approaches to "rehabilitating" school dropouts in Oklahoma City, Oklahoma. Subjects were participants in the 1964-65 MDTA School Dropout Rehabilitation Project. Evaluation was in terms of seven measures of vocational success obtained during the year immediately following conclusion of the training period.

The basic design was *ex post facto* in nature in which subjects in the combination, vocational, academic, and control groups were compared on a posttest basis on the following variables: entry into the labor market, employment status, number of jobs held, days employed, weekly wages, job satisfaction, and job performance ratings.

Information pertaining to the seven operationally defined vocational success measures was obtained primarily by means of face-to-face interviews conducted in conjunction with the Oklahoma State University School Dropout Study sponsored by the Ford Foundation. Both subjects and employers were contacted as part of the follow-up campaign to obtain data relating to the vocational success of subjects during the twelve months immediately following training.

Instruments utilized in collecting data were the *Youth Opportunity Follow-Up Survey Form* developed by the staff of the Oklahoma State University School Dropout Study, the *Brayfield-Rothe Job Satisfaction Questionnaire*, and the *Goertzel Job Success Scale*.

Non-parametric statistical tests were used throughout the study. When differences at the acceptable level of significance were found to exist for the four groups, further tests were made to determine significant differences between all possible pairs of groups.

Results of analyses indicated that significant differences existed for the experimental and control groups on three vocational success variables. These were entry into the labor market during the year following training, employment status at the one year time following training, and the number of days employed during the year following training. On the latter two variables, significant differences were noted for the four groups in two separate analyses. Significant differences were noted for the four groups both when considering the total number of 162 subjects and when considering only those 129 subjects who entered the labor market during the year following training.

Between group statistical comparisons of all possible pairs of groups made following rejection of the three hypotheses dealing with entry into the labor market, employment status, and the number of days employed, indicated a trend favoring subjects in the combination and vocational groups. Results significantly favored subjects in the vocational group over subjects in the control group on entry into the labor market; subjects in each of the combination and vocational groups over subjects in the control group on employment status; and subjects in each of the combination, vocational, and academic groups over subjects in the control group on the number of days employed. Subjects in the vocational group were also significantly favored over subjects in the academic group on the number of days employed in the analysis concerning the total number of subjects. In the analysis considering only those 129 subjects who entered the labor market during the year following conclusion of training, subjects in the combination group instead of subjects in the vocational group were significantly favored over subjects in the academic group on the number of days employed.

The trend continued to favor the combination and vocational groups on two variables where non-significant differences were noted among the four groups. Mean weekly wages and job satisfaction scores were highest for these two groups. Mean weekly wages were higher for subjects in the academic group than for subjects in the control group, but job satisfaction scores were lower for those subjects who received only academic training.

On two variables where non-significant differences were noted among the experimental and control groups, namely job performance rating scores and the number of jobs held during the year following training, the trend was not discernible.

Limitations

Certain limitations should be kept in mind while interpreting results of this study. The most serious are those which are inherent in an _ex post facto_ design, namely the inability to manipulate independent variables and to exercise control over randomization of subjects. The danger of improper interpretation is the major risk one takes when conducting research of this type.

Another limitation has to do with the danger of uncritically generalizing the findings. This is, in part, due to the lack of control pointed out in the preceding paragraph. Though the study dealt with a specific type of population--high school dropouts who recognized the need for further training and were attempting to satisfy this need--

no statistical evidence is available to indicate that this population is typical of any larger group of dropouts either locally or nationally.

A third limitation has to do with the interview method of collecting data. Regardless of the care in developing and administering an interview schedule, no absolute assurances can be given that subjects will give valid responses. The "halo effect" cannot be disregarded when data is gathered in this fashion.

Conclusions and Recommendations

The evidence resulting from the analysis of data appears to be supportive of a general conclusion that the two groups of subjects who received vocational skill training in the MDTA Program in Oklahoma City, whether such training was received in combination with academic training or not, enjoyed the greatest degree of vocational success during the year immediately following training. This was evidenced by the trend occurring throughout most of the data which consistently favored one or both of the combination and vocational groups.

The results also seemed to indicate that subjects in the academic group achieved a greater degree of vocational success than did subjects in the control group, but a lesser degree of vocational success than did subjects in either the combination or vocational groups.

Although it appears that the two curricular approaches which included vocational skill training were the most effective in "rehabilitating" these particular school dropouts during the first year following training, one important question arising from the study yet unanswered is whether the various vocational success variables become more or less significant between the treatment groups over a longer time span following training. This question not only points out the need for further research dealing with vocational success of MDTA trainees, but it also indicates the desirability of conducting such research on a more longitudinal basis.

It also appears desirable that future research studies conducted in the area of vocational success of MDTA trainees be designed so that more rigid control can be exercised. Selection procedures which utilize random assignment or matching of subjects would enable future researchers to make more specific conclusions with a greater degree of confidence.

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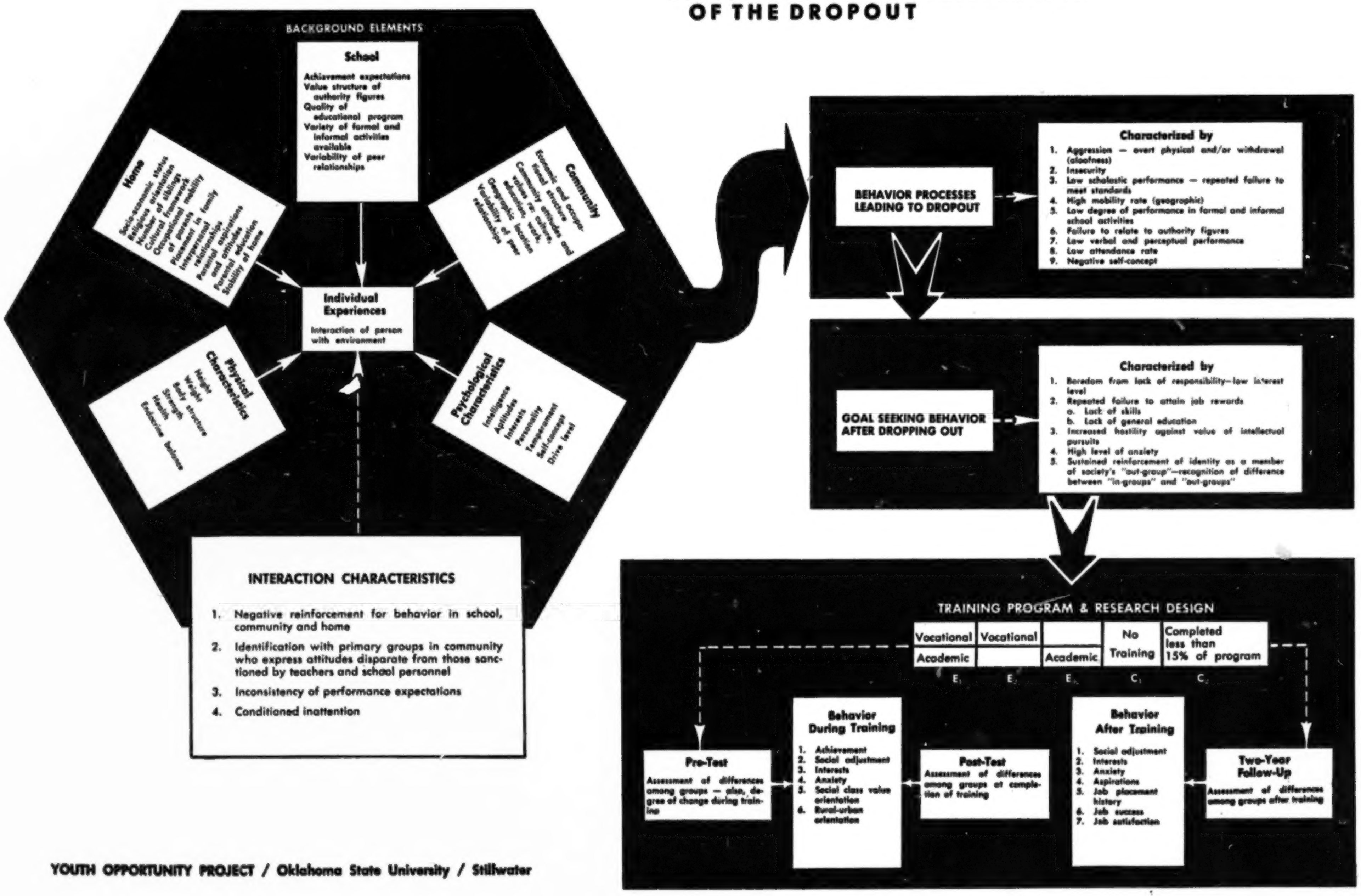
APPENDICES

APPENDIX A

FORD FOUNDATION RESEARCH PARADIGM

ETIOLOGY AND REHABILITATION OF THE DROPOUT


BACKGROUND ELEMENTS
School
Achievement expectations
Value structure of authority figures
Quality of educational program
Variety of formal and informal activities available
Variability of peer relationships
Home
Socio-economic status
Religious orientation
Number of siblings
Cultural framework
Occupational mobility of parents
Placement in family
Interpersonal relationships
Parental aspirations and attitudes
Parental education
Stability of home
Community
Economic and occupational structure
Community attitudes and values re: culture, education, work,
Geographic location
Variability of peer relationships
Physical Characteristics
Height
Weight
Body structure
Strength
Health
Endocrine balance
Psychological Characteristics
Intelligence
Aptitudes
Interests
Personality
Temperament
Self-concept
Drive level
Individual Experiences
Interaction of person with environment
BEHAVIOR PROCESSES LEADING TO DROPOUT
GOAL SEEKING BEHAVIOR AFTER DROPPING OUT
TRAINING PROGRAM & RESEARCH DESIGN
Vocational
Academic
Vocational
Academic
No Training
Completed less than 15% of program
E_1
E_2
E_3
C_1
C_2
Pre-Test
Assessment of differences among groups — also, degree of change during training
Post-Test
Assessment of differences among groups at completion of training
Two-Year Follow-Up
Assessment of differences among groups after training

INTERACTION CHARACTERISTICS

1. Negative reinforcement for behavior in school, community and home
2. Identification with primary groups in community who express attitudes disparate from those sanctioned by teachers and school personnel
3. Inconsistency of performance expectations
4. Conditioned inattention

BEHAVIOR PROCESSES LEADING TO DROPOUT

Characterized by

1. Aggression — overt physical and/or withdrawal (aloofness)
2. Insecurity
3. Low scholastic performance — repeated failure to meet standards
4. High mobility rate (geographic)
5. Low degree of performance in formal and informal school activities
6. Failure to relate to authority figures
7. Low verbal and perceptual performance
8. Low attendance rate
9. Negative self-concept

GOAL SEEKING BEHAVIOR AFTER DROPPING OUT

Characterized by

1. Boredom from lack of responsibility—low interest level
2. Repeated failure to attain job rewards
   a. Lack of skills
   b. Lack of general education
3. Increased hostility against value of intellectual pursuits
4. High level of anxiety
5. Sustained reinforcement of identity as a member of society's "out-group"—recognition of difference between "in-groups" and "out-groups"

Behavior During Training

1. Achievement
2. Social adjustment
3. Interests
4. Anxiety
5. Social class value orientation
6. Rural-urban orientation

Behavior After Training

1. Social adjustment
2. Interests
3. Anxiety
4. Aspirations
5. Job placement history
6. Job success
7. Job satisfaction

YOUTH OPPORTUNITY PROJECT / Oklahoma State University / Stillwater

APPENDIX B

DATA COLLECTION INSTRUMENTS

Code No.__________

YOUTH OPPORTUNITY FOLLOW-UP SURVEY

Sponsored by Oklahoma State University and the Ford Foundation

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This survey contains general questions about yourself and your plans. Please answer the question as clearly and honestly as you can. Your individual answers will be kept confidential.

GENERAL INSTRUCTIONS: Please read each item carefully. Answer all items that apply to you, and skip those that do not apply.

I. GENERAL INFORMATION:

A. For each place you have lived during the last six months, would you tell us the following:

Your Address	Dates You Lived There	Relationship of Those Who Live or Lived With You
__________	________ to now________	__________
__________	________ to ________	__________
__________	________ to ________	__________
__________	________ to ________	__________

B. Where you are living now, are you renting____, buying____, or just staying with someone____? (Please check one.)

C. What is your present marital status? __________________________

D. Has this changed during the last six months? No____ Yes____. If yes, in what way?

____

E. If married, what is your husband or wife's occupation now? __________________________

For whom does he or she work (if employed)? __________________________

____

F. Your Present Occupational Status:

Circle ALL statements that apply in the list below. Then give any additional explanation that might be necessary.

Men	Women
1. Student	1. Student
2. Military (Active Duty)	2. Housewife
3. Employed, full time	3. Employed, full time
4. Employed, part time	4. Employed, part time
5. Not employed, not actively seeking work	5. Maternity leave, plan to return or continue working
6. Not employed, actively seeking work	6. Not employed, not actively seeking work
7. Disabled (Please explain)	7. Not employed, actively seeking work
8. Other (Please explain)	8. Other (Please explain)

Explanation: __________________________

____

____

G. Regardless of what you are doing, how do you feel about the life you are now living? (Circle best answer below.)

1. I really like it.
2. My likes just balance my dislikes.
3. I don't like it, but I will have to put up with it.
4. I hate it.

H. Will you tell why you circled the one you did.

I. If not employed, what are the main sources of your income or support?

II. JOB INFORMATION: If employed AT ALL outside the home now, would you answer the following:

A. Name of company or employer:

B. Date you first started on this job or with this employer:

C. What do you actually do on this job now?

D. How does this differ from what you did when you first started on this job?

E. How many hours did you work on this job last week? ________ How many hours do you usually work?

F. Would you estimate your total take home pay for last week?

G. How does this pay compare with what you got when you first started on this job?

H. What sort of training, if any, have you been given by this employer?

III. JOB SATISFACTION:

A. If employed at all outside the home now, we would like for you to tell us how you feel about your present job. (Circle best answer at right of page.) →

1. I really like my job.
2. My likes just balance my dislikes.
3. I don't like it, but I will have to put up with it.
4. I hate it.

B. What things do you like MOST about your job?

C. What things do you like LEAST about your job?

D. If you had it to do over, would you try to get this type of job again?

E. Do you expect to continue with your present job? Yes______ No______ Undecided______.

If not, why? ______________________________

About when do you plan to change? ______________________________

What will you do then? ______________________________

F. On the whole do you feel your present line of work offers opportunity for you to do the things you can do best?

Yes______ No______ Why or why not? ______________________________

G. WOULD YOU NOW COMPLETE THE SEPARATE FORM WITH THE WORDS JOB OPINIONS AT THE TOP.

IV. OTHER JOBS HELD DURING THE LAST SIX MONTHS:

A. How many different jobs have you had during the last six months that you do not hold now? __________

B. PLEASE DESCRIBE EACH OF THESE JOBS ON THE BACK OF EXTRA SHEET ENCLOSED.

V. PERSONAL INFORMATION:

A. Regarding your spare time, what do you do with your time when there is nothing you have to do? __________

B. Would you list any groups that you belong to or take part in like clubs, unions, church or religious groups.

C. Do you ever read in your spare time? Yes______ No______

1. What type of magazines, books, etc. (if any)? ______________________________

2. Do you read the newspaper? Yes______ No______ If yes, please check about how often you read the parts of the newspaper listed below.

	1. Daily	2. Weekly	3. Monthly	4. Never
a. Front page news	______	______	______	______
b. Sports page	______	______	______	______
c. Editorials	______	______	______	______
d. Comics	______	______	______	______

D. During the last six months, have you been studying any kind of special courses, home study courses or correspondence courses? Yes______ No______ If yes, please describe.

E. Have you been going to any kind of school during the last 6 months? Yes______ No______

If yes, what kind? ______________________________

Could you tell me why you are doing this or how you plan to use what you learn?

____
____
____

VI. FOR PERSONS WHO WERE IN MANPOWER TRAINING CLASSES

A. Looking back at the Manpower program in general, in what ways did it help you most?

____
____
____
____

B. In what way could it have helped you more? (What do you wish you had gotten that you did not?)

____
____
____

VII. Future Plans FOR ALL PERSONS

A. What would you really like to be doing two years from now? ____________________

____
____
____

B. Do you expect to be doing what you would really like two years from now? Why or why not? __________

____
____
____

VIII. Information for next follow-up FOR ALL PERSONS

A. We are very interested in keeping in touch with you and will check with you again in about six months. To help us in contacting you then, would you please answer these questions:

1. Where will you most likely be living six months from now? ____________________

   ____

2. Would you tell us the names and addresses of two people who will always know where you are living.

Name	Address	Phone Number

OTHER JOBS HELD DURING LAST SIX MONTHS

Instructions: Would you please describe below any jobs you have had during the last six months that you do not hold now.

Job I (Last job you had)

1. Name of company or employer ______________________________
2. About when were you on that job? ____________ to ____________
(month) (month)
3. What kinds of work did you actually do on that job? ______________________________
4. How many hours per week did you usually work on that job? ____________
5. Your take home pay was usually about how much per week? ____________
6. Reasons for leaving that job. ______________________________

Job II (Next to last job)

1. Name of company or employer ______________________________
2. About when were you on that job? ____________ to ____________
(month) (month)
3. What kinds of work did you actually do on that job? ______________________________
4. How many hours per week did you usually work on that job? ____________
5. Your take home pay was usually about how much per week? ____________
6. Reasons for leaving that job. ______________________________

Job III

1. Name of company or employer ______________________________
2. About when were you on that job? ____________ to ____________
(month) (month)
3. What kinds of work did you actually do on that job? ______________________________
4. How many hours per week did you usually work on that job? ____________
5. Your take home pay was usually about how much per week? ____________
6. Reasons for leaving that job. ______________________________

TOTAL NUMBER OF JOBS HELD SINCE JUNE 1, 1965

1. Name of Employer:____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

- -

2. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

- -

3. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

- -

4. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

---

5. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

- -

6. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

- -

7. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

- -

8. Name of Employer: ____________________ Address________________

   Dates worked: ________________ to ________________
   Day/Month/Year Day/Month/Year

Code No.__________

JOB OPINIONS*

Some jobs are more interesting and satisfying than others. We want to know how people feel about different jobs. This blank contains eighteen statements about jobs. There are no right or wrong answers. We would like your honest opinion on each of the statements.

Directions: IF NOW EMPLOYED, PLEASE CIRCLE THE PHRASE BELOW EACH STATEMENT WHICH BEST DESCRIBES HOW YOU FEEL ABOUT YOUR PRESENT JOB.

1. My job is like a hobby to me.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
2. My job is usually interesting enough to keep me from getting bored.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
3. It seems that my friends are more interested in their jobs.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
4. I consider my job rather unpleasant.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
5. I enjoy my work more than my leisure time.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
6. I am often bored with my job.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
7. I feel fairly well satisfied with my present job.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
8. Most of the time I have to force myself to go to work.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
9. I am satisfied with my job for the time being.
   STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
10. I feel that my job is no more interesting than others I could get.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
11. I definitely dislike my work.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
12. I feel that I am happier in my work than most other people.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
13. Most days I am enthusiastic about my work.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
14. Each day of work seems like it will never end.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
15. I like my job better than the average worker does.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
16. My job is pretty uninteresting.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
17. I find real enjoyment in my work.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE
18. I am disappointed that I ever took this job.
    STRONGLY AGREE   AGREE   UNDECIDED   DISAGREE   STRONGLY DISAGREE

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* This instrument is the Brayfield-Rothe Job Satisfaction Blank (6). The title and directions were changed to meet the needs of the study, with the permission of Dr. Arthur H. Brayfield.

Youth Vocational Performance Survey*

Code No. ____________

Sponsored by Oklahoma State University and The Ford Foundation

Directions: Place a check mark ☒ in the box in front of each statement that you believe describes or characterizes the employee under consideration. Read a few of the statements over before checking any. **Check as many or as few as you think apply to the employee.**

☐ 1. Slow but satisfactory.
☐ 2. Welcomes constructive criticism.
☐ 3. Personal habits are definitely unsatisfactory.
☐ 4. Always reports to work on time.
☐ 5. High dependability and a keen understanding.
☐ 6. Meets normal standards of work.
☐ 7. Dependability very poor; requires constant driving.
☐ 8. Only sufficient knowledge to hold present job; limited experience.
☐ 9. Profits by criticism.
☐ 10. Intelligent, discriminating and exact in his work efforts.
☐ 11. Always willing but entirely too congenial.
☐ 12. Careless, inefficient, wastes time; inaccurate; fails to improve; avoids responsibility.
☐ 13. Gets discouraged easily.
☐ 14. Satisfactory in every respect.
☐ 15. Apparently does not like indoor work or to be confined.
☐ 16. Would rather talk than work.
☐ 17. An excellent worker in all respects.
☐ 18. Handles poorly matters requiring mental concentration.
☐ 19. Always loves to learn.
☐ 20. Resents criticism; fails to get along; disagreeable.
☐ 21. Rarely makes a poor decision.
☐ 22. Follows instructions; work generally up to standard; requires normal supervision.
☐ 23. A little slow to learn.
☐ 24. Work often below standard; requires frequent checking; requires more than usual supervision.
☐ 25. Will listen and do as told whatever is undertaken.

Please check the most appropriate response to the following questions.

1. How adequate was the employee's training for this job before being employed by you?

☐ Very Adequate ☐ Just Adequate ☐ Slightly Inadequate ☐ Very Inadequate

2. All things considered, how satisfied are (or were) you with respect to this employee's:

	Very Satisfied	Just Satisfied	Slightly Dissatisfied	Very Dissatisfied
a. General attitude	☐	☐	☐	☐
b. Job performance	☐	☐	☐	☐

Dates of employment: Started ____________ Ended (or present) ____________

* This instrument is the Goertzel Job Success Scale (16). The title and directions were changed to meet the needs of the study, with the written permission of Dr. V. Goertzel.

APPENDIX C

STATISTICAL TABLES

TABLE XIX

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND CONTROL GROUPS

Groups	In Labor Market	Not in Labor Market	Totals
Combination	48	11	59
Control	26	14	40
Totals	74	25	99

Chi Square: 2.57 df: 1 $.10 < p < .20$

TABLE XX

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING BETWEEN THE VOCATIONAL AND CONTROL GROUPS

Groups	In Labor Market	Not in Labor Market	Totals
Vocational	33	2	35
Control	26	14	40
Totals	59	16	75

Chi Square: 7.87 df: 1 $.001 < p < .01$

TABLE XXI

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING BETWEEN THE ACADEMIC AND CONTROL GROUPS

Groups	In Labor Market	Not in Labor Market	Totals
Academic	22	6	28
Control	26	14	40
Totals	48	20	68
Chi Square: .88	df: 1		$.30 < p < .50$

TABLE XXII

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND VOCATIONAL GROUPS

Groups	In Labor Market	Not in Labor Market	Totals
Combination	48	11	59
Vocational	33	2	35
Totals	81	13	94
Chi Square: 2.09	df: 1		$.10 < p < .20$

TABLE XXIII

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND ACADEMIC GROUPS

Groups	In Labor Market	Not in Labor Market	Totals
Combination	48	11	59
Academic	22	6	28
Totals	70	17	87
Chi Square: .0003	df: 1		$.95 < p < .98$

TABLE XXIV

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING BETWEEN THE VOCATIONAL AND ACADEMIC GROUPS

Groups	In Labor Market	Not in Labor Market	Totals
Vocational	33	2	35
Academic	22	6	28
Totals	55	8	63
Chi Square: 2.19	df: 1		$.10 < p < .20$

TABLE XXV

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND CONTROL GROUPS WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Employed	Unemployed	Totals
Combination	34	25	59
Control	11	29	40
Totals	45	54	99
Chi Square: 7.52	df: 1		$.001 < p < .01$

TABLE XXVI

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE VOCATIONAL AND CONTROL GROUPS WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Employed	Unemployed	Totals
Vocational	24	11	35
Control	11	29	40
Totals	35	40	75
Chi Square: 11.06	df: 1		$p < .001$

TABLE XXVII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE ACADEMIC AND CONTROL GROUPS WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Employed	Unemployed	Totals
Academic	12	16	28
Control	11	29	40
Totals	23	45	68
Chi Square: 1.12	df: 1		.20 <p <.30

TABLE XXVIII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND VOCATIONAL GROUPS WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Employed	Unemployed	Totals
Combination	34	25	59
Vocational	24	11	35
Totals	58	36	94
Chi Square: .70	df: 1		.30 <p <.50

TABLE XXIX

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND ACADEMIC GROUPS WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Employed	Unemployed	Totals
Combination	34	25	59
Academic	12	16	28
Totals	46	41	87
Chi Square: 1.12	df: 1		$.20 < p < .30$

TABLE XXX

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE VOCATIONAL AND ACADEMIC GROUPS WHEN CONSIDERING THE TOTAL NUMBER OF SUBJECTS

Groups	Employed	Unemployed	Totals
Vocational	24	11	35
Academic	12	16	28
Totals	36	27	63
Chi Square: 3.22	df: 1		$.05 < p < .10$

TABLE XXXI

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND CONTROL GROUPS WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Combination	34	14	48
Control	11	15	26
Totals	45	29	74
Chi Square: 4.62	df: 1		$.02 < p < .05$

TABLE XXXII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE VOCATIONAL AND CONTROL GROUPS WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Vocational	24	9	33
Control	11	15	26
Totals	35	24	59
Chi Square: 4.39	df: 1		$.02 < p < .05$

TABLE XXXIII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE ACADEMIC AND CONTROL GROUPS WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Academic	12	10	22
Control	11	15	26
Totals	23	25	48

Chi Square: .31 df: 1 $.50 < p < .70$

TABLE XXXIV

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND VOCATIONAL GROUPS WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Combination	34	14	48
Vocational	24	9	33
Totals	58	23	81

Chi Square: .005 df: 1 $.90 < p < .95$

TABLE XXXV

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE COMBINATION AND ACADEMIC GROUPS WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Combination	34	14	48
Academic	12	10	22
Totals	46	24	70
Chi Square: 1.13	df: 1		$.20 < p < .30$

TABLE XXXVI

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING BETWEEN THE VOCATIONAL AND ACADEMIC GROUPS WHEN CONSIDERING ONLY THOSE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Vocational	24	9	33
Academic	12	10	22
Totals	36	19	55
Chi Square: 1.21	df: 1		$.20 < p < .30$

APPENDIX D

STATISTICAL TABLES

TABLE XXXVII

CHI-SQUARE ANALYSIS OF THE RATIO OF WHITE TO NON-WHITE SUBJECTS

Groups	White	Non-White	Totals
Combination	48	11	59
Vocational	29	6	35
Academic	18	10	28
Control	29	11	40
Totals	124	38	162
Chi Square: 4.15	df: 3		$.20 < p < .30$

TABLE XXXVIII

CHI-SQUARE ANALYSIS OF THE RATIO OF MALE TO FEMALE SUBJECTS

Groups	Male	Female	Totals
Combination	16	43	59
Vocational	20	15	35
Academic	5	23	28
Control	9	31	40
Totals	50	112	162
Chi Square: 15.24	df: 3		$.001 < p < .01$

TABLE XXXIX
ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY MALE SUBJECTS

Groups	In Labor Market	Not in Labor Market	Totals
Combination	15	1	16
Vocational	20	0	20
Academic	5	0	5
Control	8	1	9
Totals	48	2	50

*A chi-square test cannot be made because of low frequencies.

TABLE XL

ANALYSIS OF LABOR MARKET STATUS DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY FEMALE SUBJECTS

Groups	In Labor Market	Not in Labor Market	Totals
Combination	33	10	43
Vocational	13	2	15
Academic	17	6	23
Control	18	13	31
Totals	81	31	112

Chi Square: 5.04 df: 3 $.10 < p < .20$

TABLE XLI

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF MALE SUBJECTS

Groups	Employed	Unemployed	Totals
Combination	14	2	16
Vocational	17	3	20
Academic	4	1	5
Control	5	4	9
Totals	40	10	50

*A chi-square test cannot be made because of low frequencies.

TABLE XLII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE MALE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Combination	14	1	15
Vocational	17	3	20
Academic	4	1	5
Control	5	3	8
Totals	40	8	48

*A chi-square test cannot be made because of low frequencies.

TABLE XLIII

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF FEMALE SUBJECTS

Groups	Employed	Unemployed	Totals
Combination	20	23	43
Vocational	7	8	15
Academic	8	15	23
Control	6	25	31
Totals	41	71	112
Chi Square: 6.48	df: 3		$.05 < p < .10$

TABLE XLIV

ANALYSIS OF EMPLOYMENT STATUS AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE FEMALES WHO ENTERED THE LABOR MARKET

Groups	Employed	Unemployed	Totals
Combination	20	13	33
Vocational	7	6	13
Academic	8	9	17
Control	6	12	18
Totals	41	40	81
Chi Square: 3.67	df: 3		$.20 < p < .30$

TABLE XLV

KRUSKAL-WALLIS TEST OF NUMBER OF JOBS HELD DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF MALE SUBJECTS

Groups	N	Sum of Ranks	Average Ranks
Combination	16	406.0	25.38
Vocational	20	452.5	22.63
Academic	5	190.0	38.00
Control	9	226.5	25.17
H= 5.09		df: 3	$.10 < p < .20$

TABLE XLVI

KRUSKAL-WALLIS TEST OF NUMBER OF JOBS HELD DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE MALE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	N	Sum of Ranks	Average Ranks
Combination	15	374.0	24.93
Vocational	20	413.5	20.68
Academic	5	180.0	36.00
Control	8	208.5	26.06
H= 5.79		df: 3	$.10 < p < .20$

TABLE XLVII

KRUSKAL-WALLIS TEST OF NUMBER OF JOBS HELD DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF FEMALE SUBJECTS

Groups	N	Sum of Ranks	Average Ranks
Combination	43	2628.5	61.13
Vocational	15	826.5	55.10
Academic	23	1395.0	60.65
Control	31	1478.0	47.68
$\underline{H}$= 3.87		df: 3	$.20 < p < .30$

TABLE XLVIII

KRUSKAL-WALLIS TEST OF NUMBER OF JOBS HELD DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE FEMALE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	N	Sum of Ranks	Average Ranks
Combination	33	1431.5	43.38
Vocational	13	413.5	31.81
Academic	17	776.0	45.65
Control	18	700.0	38.89
$\underline{H}$= 3.43		df: 3	$.30 < p < .50$

TABLE XLIX

KRUSKAL-WALLIS TEST OF NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF MALE SUBJECTS

Groups	N	Sum of Ranks	Average Ranks
Combination	16	459.0	28.69
Vocational	20	590.5	29.53
Academic	5	112.5	22.50
Control	9	113.0	12.56
$\underline{H}$= 9.62		df: 3	$.02 < p < .05$

TABLE L

KRUSKAL-WALLIS TEST OF NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF FEMALE SUBJECTS

Groups	N	Sum of Ranks	Average Ranks
Combination	43	2828.5	65.78
Vocational	15	997.5	66.50
Academic	23	1302.0	56.61
Control	31	1200.0	38.71
$\underline{H}$= 14.29		df: 3	$.001 < p < .01$

TABLE LI

COMPARISONS BETWEEN PAIRS OF GROUPS OF THE NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF MALE SUBJECTS

Groups	Sum of Ranks	Average Ranks	U	Probability
Combination vs Control	258.5 66.5	16.16 7.39	21.5	p <.02
Vocational vs Control	350.5 84.5	17.53 9.39	39.5	p <.02
Academic vs Control	53.0 52.0	10.6 5.78	7	p <.05
Combination vs Vocational	285.0 381.0	17.81 19.05	149	p >.05
Combination vs Academic	187.5 43.5	11.72 8.70	28.5	p >.05
Vocational vs Academic	208.5 46.0	10.43 9.20	69	p >.05

TABLE LII

COMPARISONS BETWEEN PAIRS OF GROUPS OF THE NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING THE TOTAL NUMBER OF FEMALE SUBJECTS

Groups	Sum of Ranks	Average Ranks	Z	Probability
Combination vs Control	1930.0 845.0	44.88 27.26	3.58	$p < .00046$
Vocational vs Control	468.5 612.5	31.23 19.76	2.84	$p = .0046$
Academic vs Control	750.5 734.5	32.63 23.69	2.16	$p = .0308$
Combination vs Vocational	1267.0 444.0	29.47 29.60	.027	$p < .98$
Combination vs Academic	1523.5 687.5	35.43 29.89	1.13	$p = .2584$
Vocational vs Academic	325.0 416.0	21.67 18.09	.99	$p = .3222$

TABLE LIII

KRUSKAL-WALLIS TEST OF NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE MALE SUBJECTS WHO ENTERED THE LABOR MARKET DURING THE YEAR

Groups	N	Sum of Ranks	Average Ranks
Combination	15	427.0	28.47
Vocational	20	551.5	27.58
Academic	5	102.5	20.50
Control	8	95.0	11.88
H= 9.10		df: 3	$.02 < p < .05$

TABLE LIV

KRUSKAL-WALLIS TEST OF NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE FEMALE SUBJECTS WHO ENTERED THE LABOR MARKET DURING THE YEAR

Groups	N	Sum of Ranks	Average Ranks
Combination	33	1631.50	49.44
Vocational	13	584.50	44.96
Academic	17	683.00	40.18
Control	18	422.00	23.44
H= 14.69		df: 3	$.001 < p < .01$

TABLE LV

COMPARISONS BETWEEN PAIRS OF GROUPS OF THE NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE MALE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Sum of Ranks	Average Ranks	U	Probability
Combination	227.0	15.13	13.0	p <.002
vs				
Control	49.0	6.13		
Vocational	225.0	11.25	39.0	p <.05
vs				
Control	75.0	9.38		
Academic	48.0	9.60	7.0	p = .066
vs				
Control	43.0	5.38		
Combination	268.5	17.90	148.5	p >.05
vs				
Vocational	361.5	18.08		
Combination	171.5	11.43	23.5	p >.05
vs				
Academic	38.5	7.70		
Vocational	279.0	13.95	31.0	p >.05
vs				
Academic	46	9.20		

TABLE LVI

COMPARISONS BETWEEN PAIRS OF GROUPS OF THE NUMBER OF DAYS EMPLOYED DURING THE YEAR FOLLOWING CONCLUSION OF TRAINING WHEN CONSIDERING ONLY THOSE FEMALE SUBJECTS WHO ENTERED THE LABOR MARKET

Groups	Sum of Ranks	Average Ranks		Probability
Combination	1049.0	31.79	$Z= 3.83$	$p = .00014$
vs				
Control	274.0	15.22		
Vocational	267.5	20.58	$U=57.5$	$p < .02$
vs				
Control	228.5	12.69		
Academic	371.5	21.85	$U=87.5$	$p < .05$
vs				
Control	258.5	14.36		
Combination	798.0	24.18	$Z= .55$	$p = .5824$
vs				
Vocational	283.0	21.77		
Combination	906.5	27.47	$Z= 1.33$	$p = .1836$
vs				
Academic	368.5	21.68		
Vocational	216.0	16.62	$U=96.0$	$p > .05$
vs				
Academic	249.0	14.65		

TABLE LVII

KRUSKAL-WALLIS TEST OF WEEKLY WAGES FOR THOSE MALE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Sum of Ranks	Average Ranks
Combination	14	353.5	25.25
Vocational	17	330.5	19.44
Academic	4	76.5	19.13
Control	5	59.5	11.90
H= 5.23		df: 3	$.10 < p < .20$

TABLE LVIII

KRUSKAL-WALLIS TEST OF WEEKLY WAGES FOR THOSE FEMALE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Sum of Ranks	Average Ranks
Combination	20	455.0	22.75
Vocational	7	155.0	22.14
Academic	8	168.5	21.06
Control	6	81.0	13.50
H= 2.41		df: 3	$.30 < p < .50$

TABLE LIX

KRUSKAL-WALLIS TEST OF JOB PERFORMANCE RATING SCORES FOR THOSE MALE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Sum of Ranks	Average Ranks
Combination	14	325.50	23.26
Vocational	17	321.00	18.88
Academic	4	99.00	24.75
Control	5	74.50	14.90
$\underline{H}$= 2.78		df: 3	$.30 < p < .50$

TABLE LX

KRUSKAL-WALLIS TEST OF JOB PERFORMANCE RATING SCORES FOR THOSE FEMALE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Sum of Ranks	Average Ranks
Combination	20	417.50	20.88
Vocational	7	197.50	28.21
Academic	8	181.50	22.69
Control	6	65.50	10.92
$\underline{H}$= 7.24		df: 3	$.05 < p < .10$

TABLE LXI

KRUSKAL-WALLIS TEST OF JOB SATISFACTION SCORES FOR THOSE MALE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Sum of Ranks	Average Ranks
Combination	14	305.00	21.79
Vocational	17	348.00	20.47
Academic	4	55.50	13.88
Control	5	111.50	22.30
H= 1.58		df: 3	$.50 < p < .70$

TABLE LXII

KRUSKAL-WALLIS TEST OF JOB SATISFACTION SCORES FOR THOSE FEMALE SUBJECTS EMPLOYED AT THE ONE YEAR TIME FOLLOWING CONCLUSION OF TRAINING

Groups	N	Sum of Ranks	Average Ranks
Combination	20	459.00	22.95
Vocational	7	163.50	23.36
Academic	8	139.00	17.38
Control	6	99.50	16.58
H= 2.37		df: 3	$p=.50$

VITA

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Doctor of Education

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